UDOT RESEARCH & DEVELOPMENT REPORT ABSTRACT

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7. Author(s) **Basharat Siddiqi, P.E.** **Timothy J. Taylor, P.E.** **Ryan R. Hales, P.E.** **Ron Hodge, P.L.S.** **Glen Thurgood, P.E.**	**9. Performing Organization Report No.** **J-U-B Project No. 50479-00-0**	
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16. Abstract

This study, funded by the Utah Department of Transportation, identifies potential GPS users within the Utah Department of Transportation (UDOT) and the main activities to be enhanced through usage of GPS technologies. It compares the cost and person hours needed for selected activities using conventional survey techniques vs. GPS techniques, identifies improvements in UDOT's operations that may be achieved by implementing GPS techniques, and recommends implementation activities that should be initiated in relation to equipment, training, and other pertinent issues. A brief overview of GPS technology is presented. The report identifies benefits of GPS technology and general information related to GPS technology, quality control/quality assurance and cost recovery. Findings include substantial savings in time, increased cost-effectiveness, and increased productivity resulting from the use of GPS technology. Implementation recommendations include the establishment of a management/organizational entity to oversee the implementation of GPS technologies throughout the Department, purchasing of GPS Systems throughout UDOT, the development of standard GPS specifications and procedures, ongoing training for GPS users within the Department, the establishment of a GIS "data warehouse" for the collection and dissemination of GPS obtained data throughout the Department, and a follow-up mechanism to monitor quality, effectiveness, and performance issues.

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